

WHAT IS CLAIMED IS:

1. A process for preparing a pharmaceutical formulation containing two or more active pharmaceutical ingredients comprising:
 - (a) combining two or more active pharmaceutical ingredients with a supercritical fluid to form a supercritical fluid solution; and
 - (b) separating the active ingredients from the supercritical fluid solution to yield a dry powder precipitate.
2. The process according to claim 1, wherein the supercritical fluid is carbon dioxide.
3. The process according to claim 2, wherein at least one of the active pharmaceutical ingredients is an anti-infective agent.
4. The process according to claim 3, wherein the anti-infective agent is selected from the group consisting of macrolide antibiotics, anthracycline antibiotics, quinolone antibiotics, cephalosporins, β -lactam antibiotics, penicillins, aminoglycosides, and sulfonamides.
5. The process according to claim 2, wherein two or more of the active pharmaceutical ingredients are a combination of anti-infective agents.
6. The process according to claim 5, wherein the combination of anti-infective active ingredients are selected from the group consisting of ampicillin sodium/sulbactam sodium, ticarcillin disodium/clavulanate potassium, quinupristin/dalfopristin, piperacillin sodium/tazobactam sodium, and imipenem/cilastatin.
7. The process according to claim 2, wherein the active ingredients are separated from the supercritical carbon dioxide solution by spraying the solution through a nozzle and recovering the precipitate.
8. The process according to claim 7, wherein the active pharmaceutical ingredients are mixed with a cosolvent prior to step (a).
9. The process according to claim 7, wherein the supercritical fluid is mixed with a cosolvent prior to step (a).

10. A process of preparing a pharmaceutical formulation containing a combination of two anti-infective agents comprising:

- (a) combining two anti-infectives with supercritical carbon dioxide to form a supercritical carbon dioxide solution;
- (b) spraying the supercritical carbon dioxide solution through a nozzle; and
- (c) recovering the precipitate in a dry powder form containing the combination of anti-infective agents.

11. The process according to claim 10, wherein the combination of anti-infective agents is selected from the group consisting of ampicillin sodium/sulbactam sodium, ticarcillin disodium/clavulanate potassium, quinupristin/dalfopristin, piperacillin sodium/tazobactam sodium, and imipenem/cilastatin.

12. A process for preparing a pharmaceutical formulation containing two or more active pharmaceutical ingredients comprising:

- (a) combining two or more active ingredients with a cosolvent to form a solution;
- (b) mixing the solution with a supercritical fluid; and
- (c) recovering the precipitate in a dry powder form.

13. The process according to claim 12, wherein the supercritical fluid is carbon dioxide.

14. The process according to claim 13, wherein at least one of the active pharmaceutical ingredients is an anti-infective agent.

15. The process according to claim 14, wherein the anti-infective agent is selected from the group consisting of macrolide antibiotics, anthracycline antibiotics, quinolone antibiotics, cephalosporins, β -lactam antibiotics, penicillins, aminoglycosides, and sulfonamides.

16. The process according to claim 13, wherein two or more of the active pharmaceutical ingredients are a combination of anti-infective agents.

17. The process according to claim 16, wherein the combination of anti-infective active ingredients are selected from the group consisting of ampicillin sodium/sulbactam

sodium, ticarcillin disodium/clavulanate potassium, quinupristin/dalfopristin, piperacillin sodium/tazobactam sodium, and imipenem/cilastatin.

18. The process according to claim 13, wherein the solution containing two or more active ingredients is mixed with the supercritical carbon dioxide by spraying the solution through a nozzle.

19. The process according to claim 13, wherein the solution containing two or more active ingredients is mixed with the supercritical carbon dioxide by pumping the supercritical carbon dioxide into the solution.

20. The process according to claim 13, wherein the supercritical carbon dioxide is mixed with a cosolvent prior to step (b).

21. A process for preparing a pharmaceutical formulation containing a combination of two anti-infective agents comprising:

- (a) combining two anti-infective agents with a cosolvent to form a solution;
- (b) mixing the solution with supercritical carbon dioxide; and
- (c) recovering the precipitate in a dry powder form containing the combination of anti-infective agents.

22. The process according to claim 21, wherein the combination of anti-infective agents is selected from the group consisting of ampicillin sodium/sulbactam sodium, ticarcillin disodium/clavulanate potassium, quinupristin/dalfopristin, piperacillin sodium/tazobactam sodium, and imipenem/cilastatin.

23. The process according to claim 12, wherein the solution is mixed with a supercritical fluid by spraying the solution into a chamber containing the supercritical fluid.

24. The process according to claim 21, wherein the solution is mixed with a supercritical fluid by spraying the solution into a chamber containing the supercritical fluid.

25. A supercritical fluid solution comprising a supercritical fluid and two or more active pharmaceutical ingredients.

26. The supercritical fluid solution according to claim 23, wherein the supercritical fluid is supercritical carbon dioxide.

27. The supercritical fluid solution according to claim 24, wherein two or more of the active pharmaceutical ingredients are anti-infectives.